

REMARKS

Claims 1-10, 12-16, 26 and 27 are pending in the application.

Claims 1-10, 12-16, 26 and 27 are rejected.

Claims 1, 3-4, 6-10, 13, 16, 26 and 27 are rejected under 35 U.S.C. 102(e).

Claims 2, 5, 12, 14 and 15 are rejected under 35 U.S.C. 103(a).

No new matter is added.

Claims 1-10, 12-16, 26 and 27 remain in the case for consideration.

Applicant requests reconsideration and allowance of the claims in light of the above amendments and following remarks.

Claim Rejections – 35 USC § 102

Claims 1, 3-4, 6-10, 13, 16, 26 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,448,664 to Tay et al (“Tay”).

Applicant respectfully traverses the rejections.

In the official action, the Examiner has argued that Tay teaches “a wire bonding unit (a line connected between bond pad [76] and a pad formed along the first inner rectangle) coupled between the bond pad (76) and a pad formed along the first inner rectangle, wherein the die bond pad (106) is electrically connected to the solder ball (80) via the bond pad (76) and a pad formed along the first inner rectangle.” See page 7, lines 1-3 of the official action dated February 13, 2004.

However, the line indicated as an added wire bonding unit by the Examiner, particularly shown in the drawing attached in the fax letter sent to the applicant by the Examiner on April 27, 2004 (See attached), is not a wire bonding unit, but a “circuit trace,” as in line 78 of FIG. 9A of Tay. Also see element 58 of FIG. 5 and element 78 of FIG. 6. The lines 58, 78 and 82 are indicated as circuit traces in the corresponding text of the specification of Tay. See, for example, col. 8, lines 54-57 and col. 9, lines 37-44 of Tay. Furthermore, it would be almost impossible to form a bonding wire having such a sharply bent shape with the standard wire bonding technology. See FIG. 9 of Tay.

As stated in the declaration of the Applicant submitted on January 12, 2004, all of the bond wires disclosed in Tay are merely coupled between die bond pads 106 and substrate bond pads 76, which are, in turn, placed in electrical communication with selective solder balls by *circuit traces*, for example, 78. Nowhere does Tay teach or disclose bonding wires other than the ones connected between the die bond pads 106 and the substrate bond pads 76.

Applicants reiterate that in order to have anticipation under 35 USC Section 102 (e), every element of the claim must be found in the prior art reference. Claim 1 of the present application includes “an added wire bonding unit coupled between the redundant bond finger and the added bond finger.” This is not taught or disclosed in the Tay reference. With only the circuit traces of Tay, the semiconductor package cannot be manufactured without changing the design of the package substrate, unlike in the claimed invention with the added wire bonding unit. Also see page 3, lines 1-20 of the present application.

Therefore, the above rejection does not constitute *prima facie* anticipation under 35 U.S.C. § 102 (e). Thus, claim 1 is believed to be allowable.

In addition, for the reason discussed above, claims 13 and 26, which recite similar limitations to claim 1, are also believed to be allowable. Further, claims 3-4 and 6-10, which depend from claim 1, and claims 16 and 27, which respectively depend from claim 13 and 26, are also believed to be allowable for their dependency and their own merits.

Claim Rejections – 35 USC § 103

Claims 2, 5, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tay in view of Admitted Prior Art.

The rejections are respectfully traversed.

For the reasons discussed above, the cited references, either alone or in combination, do not teach or suggest all of the limitations of claims 1 and 13, e.g., “an added wire bonding unit coupled between the redundant bond finger and the added bond finger.” Accordingly, the rejection does not present a *prima facie* case of obviousness. Therefore, claims 2, 5, and 12, which depend from claim 1, and claims 14 and 15, which depend from claim 13, are also believed to be allowable.

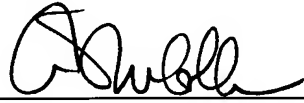
For the foregoing reasons, reconsideration and allowance of claims 1-10, 12-16, 26 and 27 of the application as amended is solicited. The Examiner is encouraged to telephone

the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Customer No. 20575

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.

A handwritten signature in black ink, appearing to read 'A. McCollom', written over a horizontal line.

Alan T. McCollom
Reg. No. 28,881

MARGER JOHNSON & McCOLLOM, P.C.
1030 SW Morrison Street
Portland, OR 97205
503-222-3613

U.S. Patent

Sep. 10, 2002

Sheet 7 of 11

US 6,448,664 B1

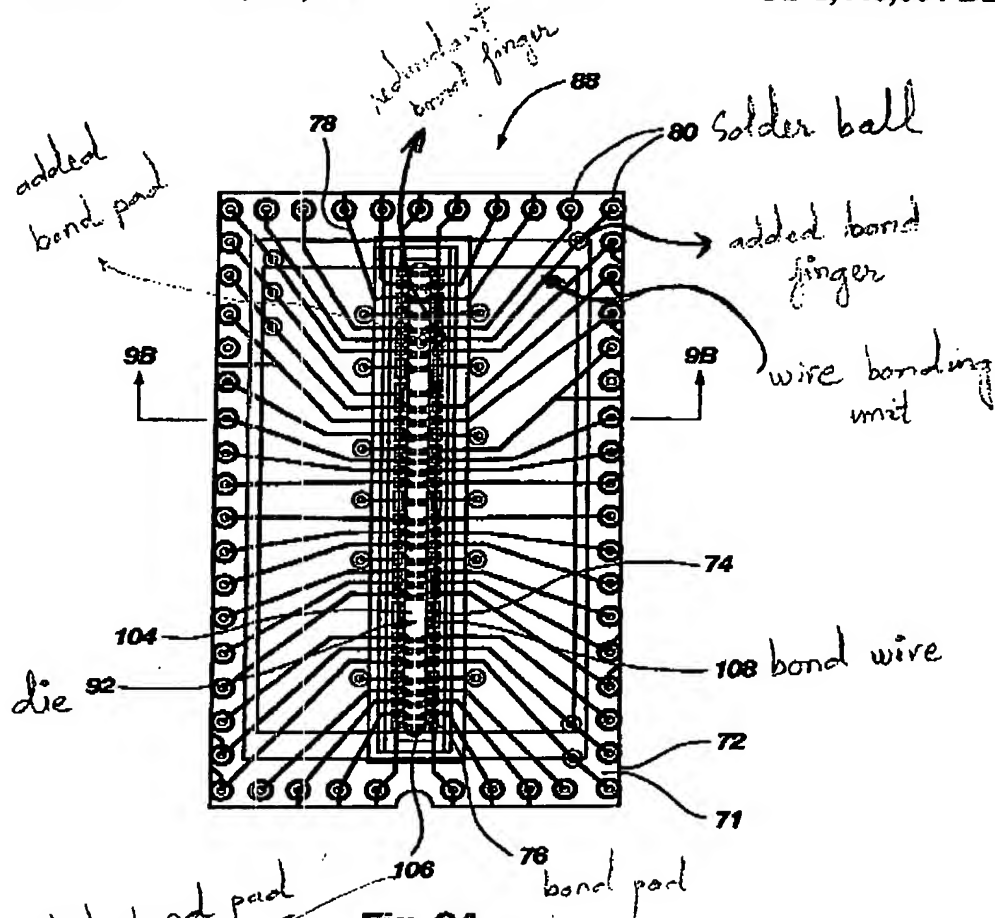


Fig. 9A

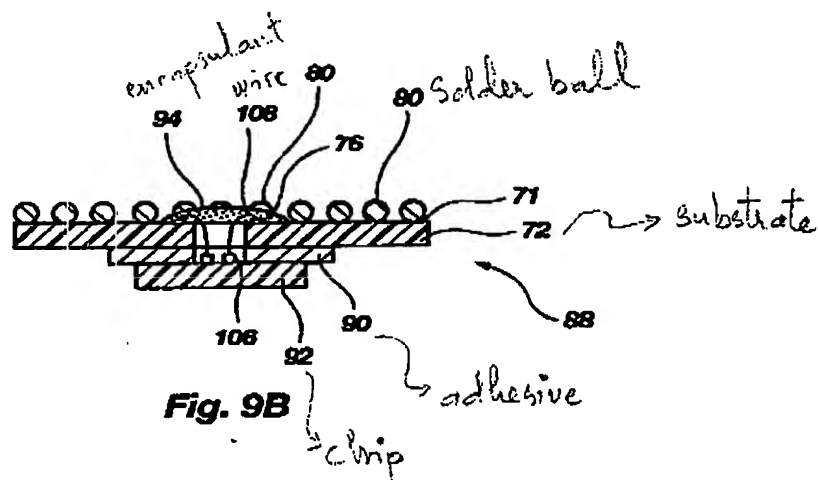


Fig. 9B

EXHIBIT

tabbles

A